

## REVIEWS

INTRODUCTION TO HEALTH STATISTICS. By Satya Swaroop, M.D., Ph.D., M.P.H., F.N.I. (Pp. xix + 343. 40s.). Edinburgh and London: E. & S. Livingstone, 1960.

MEDICAL and non-medical workers in the health services, medical schools and research units of the world will find in this book an invaluable store of information about the collection, presentation, interpretation and use of statistics relating to sickness and health of small and large population groups. The author's experience of practical statistics, his work with the World Health Organisation and his knowledge of problems facing his colleagues in other countries have resulted in a book of great potential value to all persons working in local, national and international units of the medical services. He has been well served by his publishers; diagrams are attractively presented and numbered paragraphs facilitate reference. The book is set out in three parts, has a number of appendices, an excellent bibliography, a subject index and an author index. In addition, it has some 18 tables relating to birth and death rates in various countries for many years back.

The first part of the book, "laying the foundation," indicates why statistics are needed in medicine and the basic data which are required to fulfil this need. Early chapters deal with the population census, methods of predicting population, size, registration of births, deaths and marriages, notifiable diseases and the United Nations principle for a vital statistics system. The sixth chapter is probably one of the more important in the book as it deals with morbidity statistics, a subject which is becoming increasingly important now that many of the problems which arise in the interpretation of mass aspects of disease can no longer be solved by use of mortality data alone. The final chapter in this section deals with family health records.

In the second part the author considers the administration of health statistics with particular reference to the work of W.H.O. One chapter in this section is of particular interest to public health and hospital authorities and their officials as it deals with the organisation of departmental statistics. All readers will find the observations on the design of record systems useful. The remaining chapters in this section are concerned with legislation and the use of sampling methods for the provision of community statistics.

The final part deals with presentation of data and early chapters consider various classifications used in health statistics (e.g., classifications of diseases, injuries and cause of death, of live births and foetal deaths, classifications of data by age, sex, occupation, etc.). Methods of handling and processing records are described and four chapters deal with the calculation of mortality, fertility and morbidity rates. In these chapters every rate is defined in detail, examples are given of their calculation and, where applicable, of their trends in various countries of the world. The pit-falls of making comparisons in time and space with such rates, and techniques for attempting to overcome these pit-falls are described. A chapter is devoted to the use of diagrams and the book finishes with some observations on how to measure health or its complement, ill health.

The reader will notice that some of the formal definitions of vital statistical rates differ from those usually taught in British medical schools and used in official British publications. In each case the author quotes the current W.H.O. recommendation and no confusion will arise if his commentary is read before any definition is used. The publisher's note to this book states: "Dr. Swaroop's book should be on the shelves of every health officer because it is a guide to the interpretation of his everyday work. It provides him with the essential basis for formulating policy and for making plans to promote health within the community he serves." In my opinion this observation is fully justified.

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